

# ***“Eco-hydrology/Hydro-ecology”***

**SFG Guest Coordinator & Chair**

**– Faye Jackson (Marine Scotland Science)**

Coordinated by Pauline Lang & the SFG Team

<http://www.ceh.ac.uk/scottish-freshwater-group>

SFG meeting supported by University of Stirling & the Scottish Government

# SFG community & the global picture



- Please cast your minds back to SFG Spring 2019 meeting
  - And think over environmental news stories so far...

## What would Greta say to the SFG...

Ending the climate & ecological crisis inspired her to act radically  
 – she is shifting mindsets needed for changing the world  
 – unprecedented leap from spectators to tackling human root causes



@AFP/Getty Images

- Climate Change
- Flood Risk & Water Scarcity
- Plastic Waste
- Diffuse Pollution
- Natural Resource & Energy Use
- Human Population Growth
- Biodiversity Loss
- Societal Behaviour, etc.

#SFG102

@Scottish\_FwGrp



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# SFG community & the global picture



- What has happened in the world since we last met?
  - First Minister of Scotland & Welsh Parliament initiated national climate emergency declarations – 28 & 29 April 2019
  - UK Parliament declared a state of climate emergency – 1 May 2019
  - Scotland responded with a statement to Scottish Parliament – 14 May 2019

***“There is a global climate emergency. The evidence is irrefutable. The science is clear. And people have been clear: they expect action...now Scotland must act as one to safeguard our planet for future generations.”*** – Climate Change Secretary Roseanna Cunningham

# SFG community & the global picture



- 22 countries declared a climate emergency – 19 Oct 2019
  - Populations covered by these jurisdictions ca 287 million global citizens
- We are now living in a global climate emergency situation
  - Humans are damaging the planet & its capacity to sustain life
  - Unsustainable economic growth, societal behaviours  
& environmental disconnectedness (e.g. system inputs to outputs)
- Seeing global ecological deterioration, plastic pollution, etc.
  - Witnessing cumulative worldwide impacts on freshwaters & people
  - Vital to our livelihoods, motivations, wellbeing & future
  - Mounting reports of ecological grief feelings

# SFG community & our climate emergency response

- We can choose to take responsibility by facing climate change & help turn situation around with practical action
  - One of the greatest causes in SFG's lifetime: hope for a better future
- Stepping up to fundamental environmental challenges of our time needs radically different ways of thinking & doing
  - Creating a sustainable future for freshwaters is a global endeavour
  - Needs a systemic approach & transformative problem solving
- SFG community is uniquely positioned in Scotland's freshwater landscape to lead such a legacy change initiative
  - Opportunity to harness & adapt our collective capabilities
  - Be more than we ever thought possible

# SFG community & our climate emergency mission

- **How will SFG respond to the global climate emergency?**
    - Not a task for one or few people to solve alone
    - Nor can we afford inaction or continuing as we have been
  - We are initiating a momentous go-getting social **mission** which needs urgent SFG community-level involvement
    - We have a real opportunity to do something significant for freshwaters globally & successfully change our trajectory for future generations
  - We need **membership help** kick-starting the SFG's climate emergency mission & transforming our ambition into action
    - Please grab a chat today & think how we can make this happen
    - Membership ideas & volunteers to SFG mailbox ASAP
- [scottishfreshwatergroup@sepa.org.uk](mailto:scottishfreshwatergroup@sepa.org.uk)

# SFG Updates



- **What are we currently doing to shape meaningful outcomes for Scotland's freshwaters and beyond?**
- Our first 3 pioneering SFG Action Teams are well underway
  - **AT #1 – Sustainable Minds**  
(lead coordinator – Kerr Adams;  $n = 7$  SFG members)
  - **AT #2 – Citizen Science**  
(lead coordinator – Roger Owen;  $n = 7$  SFG members)
  - **AT #3 – Innovation Hub**  
(lead coordinator – Claire Neil;  $n = 5$  SFG members)
- Inspiring to see so many SFG members doing such important work together!
  - We are grateful to everyone involved in our ATs for investing their passion, personal time and best efforts to making a real difference



SFG Meetings

# Transforming the future

Creating a safe place  
for our SFG Members to  
connect, grow & collaborate

## SFG's Shared Vision

Shaping meaningful outcomes  
for Scotland's freshwaters  
&  
Developing future generations  
of environmental leaders\*

# Opportunity to live our purpose

SFG Action Teams

# Urgency for community-level action

SFG Environmental  
& People Outcomes

\* = scientists, enthusiasts, researchers, practitioners, innovators, problem-solvers etc.



# SFG Updates



- These ambitious AT projects are:
  - reflective of the scale of 21<sup>st</sup> C challenges we face
  - facilitating conversations between our members on fundamental issues
  - helping us digest the overall remit & piece together manageable actions
  - thinking big, working collaboratively, taking risks & positively energised
  - dynamically evolving, overlapping & communicating with each other
  - fusing membership strengths in new ways across the SFG community
  - leading to community-level aspirations for driving much needed change
- Our Action Teams have been purposely designed for:
  - everyone in the SFG community to take part in small & big ways
  - harnessing our membership strengths & talents for maximal impact
  - collectively serving a larger purpose & improving how the SFG works

# SFG Updates



- Today we have created conditions to bring everyone together to support the pioneering work of our first three ATs in a social setting, so that
  - (1) Each AT can share initial thinking & road test ideas in an inclusive way
  - (2) We can all contribute to shaping environmental & people outcomes for Scotland's freshwaters and beyond
  - (3) We can tap into SFG's unique leadership position in the Scottish freshwater landscape to tackle sustainability challenges, encourage wider engagement & spark radical ideas for delivering practical actions
- We hope everyone uses the Scottish Government sponsored lunchtime breakout for SFG collaboration
  - All welcome to join later & keep these important conversations going
  - Feel free to contact SFG Team & Action Team lead coordinators anytime

A large, stylized blue letter 'S' composed of two overlapping, curved bands. The top band is a darker blue, and the bottom band is a lighter blue. The text is centered over the 'S'.

SFG Action Teams  
– 5 min project updates



# Our creator reflects on SFG's direction of travel

*“I would like to say how **proud and impressed** I am of the **progress and direction** the SFG Team is taking the Scottish Freshwater Group at present.*

*Apart from the important regular SFG meetings, the **innovative Action Teams** (covering three important issues initially), **development opportunities** and **other initiatives** are a **major advance**, ensuring that we will **continue** to contribute to Scotland's freshwaters and **flourish** in the future.*

*Keep up the good work!”* – **Peter Maitland, October 2019**

# SFG Updates



- **Our SFG membership is our greatest asset & we want to help it flourish!**
  - SFG meetings provide the ideal place for everyone to grow from experience in a welcoming & supportive environment
  - Fantastic incubator of talent & capabilities at any career stage
  - Need great people to continue our work in future & offer a plethora of development opportunities for interested SFG members

## **e.g. SFG Guest Coordinator Roles & Session Chairing**

- great way of getting more involved in SFG meetings & getting known
- inspiring the agenda, enhancing our professional network & having a go at chairing
- whether it's your first or thousandth time prior know-how is not essential
- we provide leadership & tailored support for all SFG roles, as required



# Our SFG Theme

***“Eco-hydrology/Hydro-ecology”***

**Faye Jackson (Marine Scotland Science)**

*“Research at the interface between the hydrological and biological (ecological) sciences”*

1. Interdisciplinary research between hydrology and ecology
2. Impacts of hydrology on ecosystems
3. Impacts of ecosystems on hydrology

(Hannah *et al.*, 2004)

